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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,208	01/02/2002	Tadashi Ilno	Q62547	8242

7590 05/04/2004

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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 10/033,208	Applicant(s) ILNO ET AL.	
	Examiner Julian Mercado	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/2/02</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 12, 14, 16, 18 and 20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 8, 12 and 16 of U.S. Patent No. 6,627,689 B2 (hereinafter the '689 patent). Although the conflicting claims are not identical, they are not patentably distinct from each other because the '689 patent recites an electrical conductive curable resin comprising a vinyl ester resin, an allyl ester resin, an acrylic acid monomer, a methacrylic acid ester monomer and a radical polymerization initiator. (see the '689 patent claims 1 and 8, applies to independent claim 1) As to the claimed at least 40% or 3 to 50% by mass of a carbonaceous filler based on the total mass, the '689 patent teaches or at least suggests this mass percentage to the extent that claim 1 recites a ratio of 20 to 80% of a graphite powder in terms of the mass ratio of the composition. (applies to dependent claim 2) With respect to the individual weight percentages of component (B), (C) and (D) as further recited in dependent claim 2, absent of unexpected results it is asserted that these are

Art Unit: 1745

optimizable parameters for result-effective variables insofar as the '689 patent specifically recites that the sum of components (A), (B), (C) and (D) is 100. (see the '689 patent claim 4) *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)

Regarding dependent claim 3, the vinyl ester resin may be a novalak vinyl ester resin. (see claim 12)

With respect to dependent claim 12, the '689 patent teaches an electrically conducting cured product such as a separator for a fuel cell as recited in claim 16. The examiner notes that the process limitation "formed by curing" not given patentable weight as the limitation does not give breadth or scope to the product claim even though such a curing step is similarly recited by the '689 patent in claim 16.

Dependent claims 14, 16, 18 and 20 call for limitations drawn to the volume resistivity, heat conductivity and air permeability of the electrically conducting cured product based on the electrically conducting curable resin. As the claimed electrically conducting curable resin and the resultantly formed curable product is taught or at least suggested by the '689 patent, it would naturally flow to inherently have the same volume resistivity, heat conductivity and air permeability, absent of a showing by applicant that the claimed invention distinguishes over the reference. *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) and *In re Spada*, 15 USPQ 2d 1655 (Fed. Cir. 1990)

Claims 5 and 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 8, 12 and 16 of U.S. Patent No. 6,627,689 B2 in view of Marumoto et al. (U.S. Pat. 5,393,822). The '689 patent does not

Art Unit: 1745

explicitly recite component (B) as diallyl phthalate, however, Marumoto et al. is relied upon to teach that diallyl phthalate would be an obvious substitution for component (B) since epoxy resins (as recited in the '689 patent) and diallyl phthalate are art-recognized equivalents. (see Marumoto et al., col. 4 line 39-46)

Claims 7 and 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 8, 12 and 16 of U.S. Patent No. 6,627,689 B2 in view of Okada et al. (U.S. Pat. 5,055,497). The '689 patent does not explicitly recite the radical polymerization initiator to be an organic peroxide, however, Okada et al. teaches an organic peroxide initiator, *inter alia*, for curable resinous compositions. (col. 39 line 53 et seq.) The skilled artisan would find obvious to employ an organic peroxide as the radical polymerization initiator in the '689 patent in accordance with this type of polymerization initiator being well known for facilitating the polymerization of the intended monomer.

Claims 9-11, 13, 15, 17 and 19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 8, 12 and 16 of U.S. Patent No. 6,627,689 B2 in view of Hinton et al. (U.S. Pat. 6,103,413). The '689 patent does not explicitly recite particulars of the aspect ratio, particle diameter, fiber diameter and fiber length of the carbonaceous filler. However, Hinton et al. teaches conductive fillers, both particulate and fibrous, the former having a particle diameter of 20 to 500 nm (corresponding to 0.02 to 0.5 μm) and the latter having an aspect ratio of at least 5. (col. 2 line 31-59) The examiner notes that the process limitation "vapor grown" for the carbon fibers have not given patentable weight as the

Art Unit: 1745

limitation does not give breadth or scope to the product claim. The limitation drawn to "carbon nanotubes" have not been given patentable weight as incorporation of this feature is recited with the alternative clause "and/or". Hinton et al. is considered to teach the claimed aspect ratio, particle diameter, fiber diameter and fiber length of the carbonaceous filler to the extent that the patentees' teachings overlap therewith. The skilled artisan would find obvious to employ the claimed aspect ratio, particle diameter, fiber diameter and fiber length for reasons such as employing an optimal filler size to enhance dispersion during preparation or processing. (ib)

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1745

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



jam



Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700